**Running Head: THE LIFE OF A FROG**

*Survival of a Frog*

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Summer 2009

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**UNIT OVERVIEW**

**Title:** *Survival of a Frog*
**Content Areas:** Science and Social Studies

**Grade Level:** Second Grade

**Unit Length:** Five Lesson with a pre-assessment and post-assessment

*Survival of a Frog* is a second grade thematic unit which gives students the opportunity to realize that all living things go through a life cycle. The unit’s main focus will be centered on the life of a frog. In addition to learning the life cycle of a frog, the students will find out the similar as well as the different characteristics of frogs and toads. The students will also learn about four species of frogs which live in Georgia. Social studies will be integrated into the unit by allowing the students to name and locate the seven major rivers in the state of Georgia.

**Academic Standards Addressed:**

**Science**

S2CS5 Students will communicate scientific ideas and activities clearly.

a. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.

S2L1 Students will investigate the life cycles of different living organisms.

a. Determine the sequence of the life cycle of common animals in your area: an amphibian such as a frog.

**Social Studies**

SS2G1 The student will locate major topographical features of Georgia and will describe how these features define Georgia’s surface.

a. Locate the major rivers: Ocmulgee, Oconee, Altamaha, Savannah, St. Mary’s, Chattahoochee, and Flint.

**Unit Goals:**

The students should:

* realize that all living organisms go through a lifecycle
* recognize the basic stages of a frog’s lifecycle.
* understand that frogs and toads are different
* realize frogs need water to survive
* understand the state of Georgia has seven major rivers.

**Unit Objectives:**

The students will:

* use construction paper and crayons or markers to draw, color, and label their personal timeline from birth to adulthood.
* draw and correctly label the stages of the frog’s life cycle (egg, tadpole, froglet, frog) and paste them on construction paper in the correct sequence.
* divide into heterogeneous groups of four or five and successfully complete a Venn diagram comparing frogs and toads.
* divide into heterogeneous groups of two or three to locate the seven major rivers andcorrectly label the location of each river on the Locate the Georgia Rivers handout.
* create a vocabulary puzzle, a life cycle of a frog poster, a feeding sign and a diorama of a frog’s habitat using a Web Quest.

**Enduring Understandings:**

The students will understand that:

* All living things have a life cycle.
* Frogs go through a sequence of distinct stages called metamorphosis.
* Frogs need wetlands to survive.
* Frogs and toads have similar and different characteristics.

**Essential Questions:**

What are the basic stages in a life cycle?

What are the basic needs of animals?

What are the different types of habitats in which frogs live?

What are the names and locations of Georgia’s seven major rivers?

What are some similar characteristics of frogs and toads?

What are some different characteristics of frogs and toads?

**Essential Vocabulary:**

**\*\*Life cycle**- all the stages, or times, of the life of an animal.

**\*\*\*Survival**- the act of living.

\***Amphibian**- animals that live in water and on land
\***Camouflage**- blending with surroundings
\***Hibernation**- sleep all winter
\***Tadpole** - first stage of the life cycle of a frog
\***Metamorphosis** - life cycle change
\***Frog**- an amphibian with moist, soft skin
\***Bullfrog**- largest North American frog
\***Spawn** - a mass of eggs deposited by a frog

\***Habitat** - the natural environment of an animal

\***Froglet** - a baby frog

Sources for definitions:

\* Fact Monster, (2009). Dictionary. Retrieved July 18, 2009, Web site: <http://dictionary.factmonster.com>

\*\* Haberkorn, K. (2000). Lesson 1: An introduction to life cylces. Retrieved July 12, 2009, Web site: <http://www.pitt.edu/~poole/LifeCycleProject/lesson1index.html>.

\*\*\*Merriam-Webster, (2009). Merriam-Webster Online Dictionary. Retrieved July 18, 2009, Web site: <http://www.merriam-webster.com/dictionary/survival>.

**Create a personal timeline.**

**Video Clip from United Streaming**

**Activities**

Focus Point

Map Key

**What is a Life Cycle?**

Pre-Assessment

Introduce Life Cycle

**KWL Chart**

**Content Title**

MmM

Lesson 1

**-Video Clip from united Streaming**

Lesson 2

**Web Quest
Activities**

**KWL Chart
(Post Assessment)**

Life Cycles of a Frog

Survival

Web Quest

Post-Assessment

“**From Tadpole to FROG” book**

Lesson 5

-Eggs

-Tadpole

- Froglet

-Frog

**Video Clip from United Streaming**

**Draw and label each stage of the Frog’s Life Cycle.**

Web Quest

Habitats

Lesson 3

Georgia Rivers
 Georgia Frogs

Lesson 4

Characteristics

**“Frog and Toad are Friends” by Arnold Lobel**

Frogs

Toad

**Magic School Bus: Hops Home Video**

**Locate Georgia Rivers on a map and label on handout.**

**United Streaming Video “Frogs and Toads”**

**Venn diagram**

**Discuss four Georgia Frogs**

**Time Table**:

|  |  |  |  |
| --- | --- | --- | --- |
| **Instructional Day** | **Date** | **Instructional Topic** | **Instructional Time** |
| 1 | May 4, 2009 | Lesson One: Survival and Pre- Assessment (KWL) | 50 minutes |
| 2 | May 5, 2009 | Lesson Two: Life cycle of Frogs | 45 minutes |
| 3 | May 6, 2009 | Lesson Three: Characteristics of frogs and toads | 55 minutes |
| 4 | May 7, 2009 | Lesson Four: Habitats in Georgia | 60 minutes |
| 5 | May 8, 2009 | Lesson Five: Web QuestIntroduction and Step 1: Frog Vocabulary | 45 minutes |
| 6 | May 11, 2009 | Web Quest- Step 2:Life cycle of a frog | 40 minutes |
| 7 | May 12, 2009 | Web Quest -Step 3:Frogs and their habitats | 50 minutes |
| 8 | May 13, 2009 | Web Quest -Step 3:Frogs and their habitats | 50 minutes |
| 9 | May 14, 2009 | Web Quest –Step 4:Food for a frog | 30 minutes |
| 10 | May 15, 2009 | Web Quest – Share projects and Post– Assessment (KWL) | 30 minutes |

**Title:** Lesson One

**Time Frame for Lesson:** 50 minutes

 **Academic Standards:**

S2L1 Students will investigate the life cycles of different living organisms.

 **Objective:**

After discussing life cycles of living things, the second grade students will use construction paper and crayons or markers to draw, color, and label their personal timeline from birth to adulthood. The students must include and label the stages: baby, toddler, adolescent (teenager) and adult.

 **Essential Vocabulary:**

Life cycle- all the stages, or times, of the life of an animal.

Metamorphosis – life cycle change

Survival- the act of living

 **Materials and Resources:**

-Construction Paper

-Crayon or Markers

-Sample of Teacher’s life cycle

- Personal timeline rubric (Appendices #1)

- KWL chart (Appendices #2)

- Computer

-LCD projector

- Sample stage of human life (Appendices #3)

-Animal Life Cycles. 100% Educational Videos. (2002). Retrieved July 8, 2009, from
Discovery Education: http://streaming.discoveryeducation.com/

**Procedures: including estimated times for each.**

**Introductory:** (10 minutes)

1. The teacher will briefly review the topic survival and the basic items all living things need to live. (Water, Food, Shelter).
2. The teacher will introduce and discuss the vocabulary words *survival*, *life cycle and metamorphosis*.
* Life cycle- all the stages, or times, of the life of an animal.
* Metamorphosis – life cycle change.
* Survival- the act of living

**Instructional:** (30 minutes)

1. She will talk about how every living thing goes through some type of life cycle - even humans.
2. Every life cycle may have different stages but still all living things go through a life cycle which is a circle.
3. The students will name some animal life cycles they have previously studied.
4. Some of the animal life cycles could include:
* Dog- birth, puppy, adult, then has puppies
* Bird – egg, chick, adult bird, lays eggs
1. Watch the short video clip from United Streaming.
2. The teacher will ask the students what the video clip said about life cycles.
3. She will ask if humans having a life cycle?
4. The class will then discuss the stages humans go through (baby, toddler, adolescent, and adult).
5. The teacher will show the students sample pictures of stages in her life from birth to adulthood.
6. The teacher will pass out construction paper and crayons or markers.
7. The students will then draw pictures to demonstrate their timeline
8. They will need to include the stages birth, toddler, adolescence and adult.
9. They will need to draw what they would like to be when they become an adult.

**Closing:** (10 minutes)

1. The teacher will allow the students to share their drawing of their timeline with the class.
2. The class will review how all living things go through a life cycle.
3. The class will then do the pre-assessment (Appendices #2)
* The class will discuss what they already know about Frogs.
* The information will be recorded in the “Know” section on the KWL chart.
* The class will then record things they would like to learn about frogs and record the information in “Want to learn” section of the KWL chart.
1. The teacher will display the chart on the science bulletin board.

**Assessment:**The student’s drawing of their personal timeline will be assessed with a rubric by having all four stages baby, toddler, adolescent (teenager) and adult drawn, colored and labeled. (Appendices#1)

**Enrichment:**

The students that finish early can get another piece of construction paper and draw a life cycle of an animal of their choice.

**Accommodation:**

The teacher will help the students that are challenged by labeling the stages of the timeline. The students would then draw and color the pictures above or below the labels. Students could also bring in photos of themselves to make their timeline.

**Appendices:**

Attached

**Appendices #1**

**Creating a Personal Timeline Rubric**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Exceeds Expectations 3points** | **Meets Expectations 2 points** | **Does Not Meet Expectations 1 point** |
| **Resources** | **The timeline contains 4 or more stages of your life.** | **The timeline contains 3 stages of your life.** | **The timeline contains 2 or fewer stages of your life.** |
| **Readability** | **The overall appearance of the timeline is pleasing and easy to read.** | **The overall appearance of the timeline is readable.** | **The timeline is difficult to read.** |
| **Spelling**  | **No more than one spelling error.**  | **No more than 3 spelling errors.** | **More than 3 spelling errors.** |

**Total Points\_\_\_\_\_\_\_\_\_\_\_/9**

**Appendices #2**

 FROGS

|  |  |  |
| --- | --- | --- |
| **K*****What I Know*** | **W*****What I Want to Know*** | **L*****What I learned*** |
|  |  |  |

**Title:** Lesson 2

**Time Frame for Lesson:** 45 minutes

**Academic Standards:**

S2L1 Students will investigate the life cycles of different living organisms.
a. Determine the sequence of the life cycle of common animals in your area: an amphibian such as a frog, and an insect such as a butterfly.

**Objective: (measurable and specific)**

Using paper and crayons or markers, the second grade students will draw and correctly label the stages of the frog’s life cycle (egg, tadpole, froglet, and frog) and paste them on construction paper in the correct sequence.

 **Essential Vocabulary**

Life cycle- All the stages, or times, of the life of an animal.

Amphibian- animals that live in water and on land.

Tadpole- first stage of the life cycle of a frog

Froglet- a baby frog.

**Materials and Resources:**

- Construction Paper

- White copy paper cut into fourths

- Crayons or Markers

- Stick glues

- Several copies of frog life cycle stages handout (Appendices #1)

- Amphibians. 100% Educational Videos (2002). Retrieved June 27, 2009, from
Discovery Education: <http://streaming.discoveryeducation.com/>

- Pfeffer, W., & Keller, H. (1994). *From Tadpole to Frog*. New York: Harper Collins Publishers.

- Learning Resources. (2009). *Giant inflatable frog life cycle*. Vernon Hills, Illinois: Learning Resources.

- Bishop, N. (2008). *Frogs*. New York, NY: Scholastic, Inc.

- Gibbons, G. (1993). *Frogs*. New York, NY: Holiday House.

- Mayer, M. (2008). *A boy, a dog, and a frog*. New York, NY: Penguin Group (USA).

**Procedures: including estimated times for each.**

**Introductory -** (10 minutes)

1. Briefly discuss what the students remember about survival and life cycles from *Lesson One*.
2. Introduce the vocabulary words and discuss the meanings.
* Life cycle- All the stages, or times, of the life of an animal.
* Amphibian- has two lives.
* Tadpole- first stage of the life cycle of a frog
* Froglet- a baby frog

**Instructional -** (30 minutes)

1. Read the book *From Tadpole to Frog* by Wendy Pfeffer.
2. Review the book by discussing each stage of the frog’s life cycle.
* What was the first stage of the life cycle?
* How many days does it take for the eggs to hatch?
* What is the second stage of the frog’s life cycle?
* What so the tadpoles eat to survive?
* What do the frogs look like in the third stage?
* What is the last stage?
* What do you think happens to the frogs after they hibernate? (Start the life cycle over by laying eggs themselves.)
1. Use the Giant Inflatable Frog Life Cycle as a visual while discussing the book.
2. Watch the short video clip from United Streaming
3. Ask the students the difference and similarities from the video and the book.
* How do the tadpoles and froglets breathe while under water?
1. Randomly divide the students into groups of four.
2. Give each group a different inflatable stage of the life cycle.
3. Have the students hold and observe the stage.
4. The students will then take one quarter of white sheet of paper and draw and label that stage of the frog life cycle.
5. The students will change inflatable stages and repeat the instructions.
6. Students will draw and label each life cycle on a separate quarter piece of white paper.
7. After each stage has been drawn and labeled, the students will glue the stages in order on a piece of construction paper.

**Closing** (5 minutes)

1. The life cycle stage drawings will be displayed on the Science bulletin board.
2. The class will come back together in whole group and any questions comments about the frog’s life cycle.
* How is a frog an Amphibian?
* How does a frog go through a life cycle?
* How is the life cycle of a frog important to a frog’s survival?

**Assessment:**

The second grade students will draw the four stages of a frog’s life cycle. They will be assessed on correctly labeling and pasting in sequence each stage of the frog’s life cycle.

**Enrichment:**

If a student finishes earlier than the other students, I would have Accelerated Reading books from the media center about frog life cycle available for them to read and take a quiz over their comprehension. Some suggested titles are:

* Bishop, N. (2008). *Frogs*. New York, NY: Scholastic, Inc.
* Gibbons, G. (1993). *Frogs*. New York, NY: Holiday House.
* Mayer, M. (2008). *A boy, a dog, and a frog*. New York, NY: Penguin Group (USA).

**Accommodation:**

I would provide a worksheet with the pictures already printed with label so the students who are challenged could color, cut and paste on the construction paper. (Appendices #1)

 **Appendices:**

Attached

**Appendices #1**



<http://www.enchantedlearning.com/subjects/amphibians/frogs.shtml>

**Title:** Lesson 3

**Time Frame for Lesson:** 55 minutes

**Academic Standards:**

S2CS5 Students will communicate scientific ideas and activities clearly.

a. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.

S2L1 Students will investigate the life cycles of different living organisms.
a. Determine the sequence of the life cycle of common animals in your area: an amphibian such as a frog, and an insect such as a butterfly.

**Objective:**

After watching the United Streaming video *Frogs and Toads*, the second grade students will divide into heterogeneous groups of four or five and successfully complete a Venn diagram comparing frogs and toads.

 **Essential Vocabulary:**

Amphibian- animals that live in water and on land

Froglet- a baby frog

Life cycle- all the stages, or times, of the life of an animal.

Metamorphosis – life cycle change

Tadpole- first stage of the life cycle of a frog.

 **Materials and Resources:**

-Computer

-LCD projector

-Venn diagram handout (Appendices #1)

-Pencils

-Frogs and Toads. Discovery Channel School. (2002). Retrieved July 15, 2009, from
Discovery Education: <http://streaming.discoveryeducation.com/>.

-Lobel, A. (1970). *Frog and Toad are Friends*. New York, NY: Barnes & Noble Publishing, Inc.

- Bishop, N. (2008). *Frogs*. New York, NY: Scholastic, Inc.

- Gibbons, G. (1993). *Frogs*. New York, NY: Holiday House.

- Mayer, M. (2008). *A boy, a dog, and a frog*. New York, NY: Penguin Group (USA).

**Procedures:**

**Introductory** (25 minutes)

1. The teacher will begin by reading the book *Frog and Toad are friends* by Arnold Lobel.
2. The teacher will stop after each short story in the book and discuss the things that are similar and different between Frog and Toad.
3. These are some questions that should be addressed for each section.

Spring

* Looking at the pictures, how are Toad and Frog different?
* Did Frog and Toad hibernate for the same time amount of time?
* How did they each feel about Spring?

The story

* Were both Frog and Toad sick?
* Who was the better at story telling?
* How did each react the other feeling terrible or sick?

A lost button

* At the beginning of the story how was each of their attitudes
* Did Frog and Toad want to help each other?
* If time you, could compare the characteristics of the buttons found and the button that Toad lost.

A Swim

* Do they both wear a bathing suit?
* Did they both swim in the river?
* Do you think they both wanted to come out of the water because they were cold?
* Were Frog and the other animals considerate of Toads feeling?

The Letter

* Were Frog and Toad happy or sad?
* Who was waiting for a letter?
* Did they feel the same at the end of the story?

**Instructional** (25 minutes)

1. The teacher will say that just like Frog and Toad in the book that real frogs and toads have characteristics that are similar as well as different.
2. The students will watch the United Streaming clip *Frogs and Toads*.
3. They will listen for similarities and differences.
4. After the video clip, the teacher will divide the students into heterogeneous groups of four or five.
5. The teacher will pass out the Venn diagram handout. (Appendices #1)
6. Students while in groups will complete the Venn diagram about frogs and toads which they learned from the video. They will have 15 minutes to complete the Venn diagram.
7. The teacher will walk around and observe and offer assistance to groups struggling with completing the Venn diagram.
8. The each group will discuss one similar and one different characteristic of frogs and toads.
9. The teacher will make sure that the following characteristics are mentioned.

Frogs:

* Live in damp areas
* Jump
* Skin must be keep moist to survive

Toads:

* Live in drier areas
* Run
* Can live away from the water and still survive

Both Frogs and Toads

* Amphibians
* Green or brown to blend with surroundings
* Go through the same life cycle (eggs, tadpoles. Froglet, adult)
* Chemicals on their skin can help humans
* Make loud calls during mating season

**Closing** (5 minutes)

1. The teacher will review about what the students have learned about frogs and toads by asking the following questions:
* What are some similar characteristics of frogs and toads?
* What are some different characteristics of frogs and toads?

**Assessment:**

Students will successfully complete a Venn diagram comparing frogs and toads. The teacher will walk around and observe that each student is participating in the group discussion.

**Enrichment:**

If a student finishes earlier than the other students, I would have Accelerated Reading books from the media center about frog life cycle available for them to read and take a quiz over their comprehension. Some suggested titles are:

* Bishop, N. (2008). *Frogs*. New York, NY: Scholastic, Inc.
* Gibbons, G. (1993). *Frogs*. New York, NY: Holiday House.
* Mayer, M. (2008). *A boy, a dog, and a frog*. New York, NY: Penguin Group (USA).

**Accommodation:**

Students with special needs should be placed in groups with students that are advanced so they can assist them in completing the Venn diagram.

**Appendices:**Attached

**Appendices #1**

Name ­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directions: Compare and Contrast frogs and toads.

Frogs Toads

 Both

**Title:** Lesson Four

**Time Frame for Lesson:** 60 minutes

 **Academic Standards:**

SS2G1 The student will locate major topographical features of Georgia and will describe how these features define Georgia’s surface.

a. Locate the major rivers: Ocmulgee, Oconee, Altamaha, Savannah, St. Mary’s, Chattahoochee,

And Flint.

 **Objective:**

Using a map of Georgia, the second grade students will divide into heterogeneous groups of two or three to locate the seven major rivers andcorrectly label thelocation of each river on the Georgia Rivers Map handout.

 **Essential Vocabulary:**

Habitat- the natural environment of an animal

Survival- the act of living

 **Materials and Resources:**

-Computer

-LCD Projector

-Pencil

-Copies of *Locate the Georgia Rivers Handout* (Appendices #1)

-15 Georgia maps

McNally, R. (1998). *Georgia Easyfinder*. Chicago, IL: Rand McNally.

The Magic School Bus: Hops Home. Scholastic. (1995). Retrieved June 27, 2009, from
Discovery Education: <http://streaming.discoveryeducation.com/>

Georgia DNR Wildlife Resources Division, (2009). Retrieved June 27, 2009, Web site: <http://www.georgiawildlife.com/documentdetail.aspx?docid=116&pageid=1&category=fishing>

Galileo, (2009). GeorgiaInfo. Retrieved July 18, 2009, Web site: <http://georgiainfo.galileo.usg.edu/garivers.htm>

Frog Watch USA (1998). Frogs in your state GA. Retrieved June 27, 2009, Web site: <http://www.nwf.org/frogwatchUSA/frogs_state.cfm?showstate=ga#frogs>

 **Procedures:**

**Introductory** (35 minutes)

1. Students will watch the video *The Magic School Bus: Hops Home.*
2. The class will discuss the video.
* The teacher will ask the following questions:
* Who is Bella?
* What happened to Bella when the window was left opened?
* Why does the class go on a field trip?
* The bus turns into what when looking for Bella?
* What was the food the class saw that Bella would eat?
* What almost ate the class?
* What did the bus do to get away from the cat?
* Where did the class go to look for Bella next?
* Did they find her there? Why not?
* Where was the next place they went to look for Bella?
* Did they find Bella there?
* What happens to Wanda when she swims on to the lily pad with Bella?
* Why is the Beaver pond a good home for Bella?
	+ Calm water to lay eggs, lily pad to sit on, a big space to hop
* Why does Wanda not want to leave Bella?
* Why does she decide to leave Bella at the Beaver Pond?
* At the end, how was Bella doing at the Beaver Pond?

**Instructional** (20 minutes)

1. The teacher will say that most frogs that live in Georgia can be found near the seven major rivers. (Ocmulgee, Oconee, Altamaha, Savannah, St. Mary’s, Chattahoochee, and Flint)
2. The teacher will divide the students into heterogeneous groups of two or three.
3. She will give each group a map and a copy of the *Locate the Georgia Rivers* handout. (Appendices #1)
4. The students will locate each of the seven major rivers on the map.
5. They will then record the location of the seven major rivers on the handout.
6. The teacher will display the Georgia map from the website <http://www.georgiawildlife.com/documentdetail.aspx?docid=116&pageid=1&category=fishing>.
7. The teacher will point to each of the major rivers on the map so the students can verify that they labeled them correctly on their map handout.
8. The teacher will then explain the habitats of four for the species of frogs which live in Georgia.
9. She will go to the Frog Watch USA website.
* Frog Watch USA (1998). Frogs in your state GA. Retrieved June 27, 2009, Web site: <http://www.nwf.org/frogwatchUSA/frogs_state.cfm?showstate=ga#frogs>
* The link shows pictures of each frog, tells a few characteristics and what type of habitat that species of frog lives in or near.

Green Tree Frog- lives in trees and shrubs near water

Southern Cricket Frog – lives in swamps, marshes, lakes, streams and roadside ditches.

Green Frog- lives close to shallow water springs, swamps, brooks, and edges of ponds or lakes.

American Bullfrog– lives in ponds, lakes, and slow-moving streams.

**Closing** (5 minutes)

1. The teacher will review frog’s habitats by asking the questions:
* What is a habitat?
* Habitat- the natural environment of an animal
* What is survival?
* Survival- the act of living
* What are the different types of habitats in which frogs live?
* What are the names and locations of Georgia’s seven major rivers?

**Assessment:**

The teacher will observe and offer assistance as the students in heterogeneous groups locate the seven major rivers on the Georgia map and correctly label the rivers on the *Locate the Georgia Rivers* handout*.* (Appendices #1) Grades will be based on participation.

**Enrichment:**

Groups which finish early can label some of the smaller rivers that branch off the seven major rivers. Students could also write a story about if they were a Georgia frog and which river they would live near.

**Accommodation:**

Students with special needs should be placed in groups with students that are advanced so they can assist them in labeling the Georgia Rivers.

**Appendices:**

Attached

**Appendices #1**

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Locate the Georgia Rivers

Directions: Use a map of Georgia to locate and record the rivers: Ocmulgee, Oconee, Altamaha, Savannah, St. Mary’s, Chattahoochee, and Flint on the map below.Adapted from:

Galileo, (2009). GeorgiaInfo. Retrieved July 18, 2009, Web site: <http://georgiainfo.galileo.usg.edu/garivers.htm>

**Title:** Lesson Five

**Time Frame for Lesson:** 4 hours and 5 minutes to be accomplished over 5 instructional days.

**Academic Standards:**

S2L1 Students will investigate the life cycles of different living organisms.
a. Determine the sequence of the life cycle of common animals in your area: an amphibian such as a frog, and an insect such as a butterfly.

**Objective:**

Students will use the computer to perform the assignments from a Web Quest. The students will create a vocabulary puzzle, a life cycle of a frog poster, a feeding sign and a diorama of a frog’s habitat.

**Essential Vocabulary:**

amphibian- animals that live in water and on land
camouflage- blending with surroundings
hibernation- sleep all winter
tadpole-  first stage of the life cycle of a frog
metamorphosis- life cycle change
frog-  an amphibian with moist, soft skin
bullfrog- largest North American frog
spawn -  a mass of eggs deposited by a frog

habitat- the natural environment of an animal

froglet- a baby frog

 **Materials and Resources:**

-Computer

-Printer

-Copy Paper

-Poster Board

-Construction Paper

-Markers

-Paint

-Crayons

-Pencils

-Plastecene or modeling clay

-Guest to act as Professor Frogger

-4 froglets (real)

-1 small aquarium with water

-Shoe box one for every student

-Sutherland, M. (2003). Fantastic *Frogs.* Retrieved June 27, 2009, Web site: <http://nig.vsb.bc.ca/frog/>

-Bishop, N. (2008). *Frogs*. New York, NY: Scholastic, Inc.

- Gibbons, G. (1993). *Frogs*. New York, NY: Holiday House.

- Mayer, M. (2008). *A boy, a dog, and a frog*. New York, NY: Penguin Group (USA).

Note: This lesson was adapted from ideas at Sutherland, M. (2003). Fantastic *Frogs.* Retrieved June 27, 2009, Web site: <http://nig.vsb.bc.ca/frog/>.

**Procedures:**

**Introductory** (15 minutes)

1. The teacher will introduce the guest Professor Frogger.
2. Professor Frogger will begin introducing herself and how her job is to care for frogs. She will show the students the four froglets she has brought with her today. Just before she begins to explain about how the froglets began their life, she receives an emergency phone call and must leave immediately to help find the Spotted Frogs in Alberta that disappeared from their exhibit.
3. Professor Frogger will leave her four froglets in the aquarium as she hurries out the door.
4. The teacher will tell the class they must care for the froglets until Professor Frogger comes back.
5. The teacher will explain to the class that to make sure the froglets are cared for properly they will do research and perform activities using a Web Quest.
6. The teacher will show the students how to access the Web Quest at <http://nig.vsb.bc.ca/frog/>.

**Instructional**

1. The teacher will pass out the first handout requested in the Web Quest Part One.
2. Students will work dependently while completing each step.

Step One: (30 minutes)

* Students will complete the vocabulary worksheet.(Appendices #1)
* Using the vocabulary worksheet, students will go to Puzzle maker on the computer to make a criss-cross puzzle for a classmate to complete.

Step Two: (40 minutes)

* The students will fill out the graphic organizer about the life cycle of a frog. (Appendices #2)
* The Web Quest has links available for students to research the life cycle for help.
* The students will discover that the frog’s life cycle starts with eggs which hatch into tadpoles. The tadpole then grows tiny legs and become a froglet. The froglet then develops into an adult frog.
* Students will take the information they find to create a poster including all four stages of the life cycle of a frog.
* The students will draw and color the life cycle.

Step Three: (1 hour and 40 minutes, divided between two days)

* Student will research the habitats of frogs using the links provided.
* Students will record their finding on the graphic organizer. (Appendices #4)
* Students will find that each species of frogs as its own habitat. Most live in tropic areas or near bodies of water. Others live on land and go in the water to mate.
* Students will use the information to create a diorama in a shoebox of what a frog’s habitat would look like.
* Students will need to locate materials such as rocks, grass, sand, leaves, and other materials to create the environment needed for the frogs to survive.

Step Four: (30 minutes)

* The students will use poster board or Kid Pix to make a feeding sign for the froglets.
* Students will need to research the frog they have chosen to find out what that species eats. Some species eat any insect that is alive. Other larger species have been known to eat larger prey such as a mouse.
* The feeding sign should be displayed next to the diorama.

**Closing** (30 minutes)

1. The class will each share their individual projects with the class.
2. The teacher will review the questions:
* How is a frog an Amphibian?
* What are the stages of a frog’s life cycle?
* What are the different types of habitats in which frogs live?
1. The class will then discussed what they have learned about frogs and complete the “Learned” section of the KWL chart.
2. The teacher will read the “Want to Learn” section of the KWL chart to verify that every question the students wanted to know was answered.

**Assessment:**

Using a rubric, the second grade students will be assessed on creating the activities designed from the Web Quest. (Appendices #3)

 **Enrichment:**

When a student finishes a step, they can automatically go to the next step. Students do not have to wait on the rest of the class. If a student finishes all activities earlier than the other students, I would have Accelerated Reading books from the media center about frog life cycle available for them to read and take a quiz over their comprehension. Some suggested titles are:

* Bishop, N. (2008). *Frogs*. New York, NY: Scholastic, Inc.
* Gibbons, G. (1993). *Frogs*. New York, NY: Holiday House.
* Mayer, M. (2008). *A boy, a dog, and a frog*. New York, NY: Penguin Group (USA).

**Accommodation:**The teacher may need to offer extra assistance to students who are falling behind on finishing the steps. She can help so that everyone finishes close to the time.

**Appendices:**

Attached

**Appendices #1**

Frog Words

Match the words to their meanings.
If you need help, click on any of the frog words in Step 1 to help you complete this sheet.

1.  amphibian                \_\_\_\_\_
2.  camouflage            \_\_\_\_\_
3.  hibernation             \_\_\_\_\_
4.  tadpole                   \_\_\_\_\_
5.  metamorphosis       \_\_\_\_\_
6.  frog                        \_\_\_\_\_
7.  bullfrog                  \_\_\_\_\_
8.  spawn                     \_\_\_\_\_
9.  habitat                    \_\_\_\_\_
10. froglet                   \_\_\_\_\_

a. blending with surroundings
b.  life cycle change
c.  sleep all winter
d.  animals that live in water and on land
e.  first stage of the life cycle of a frog
f.  an amphibian with moist, soft skin
g.  a mass of eggs deposited by a frog
h.  the natural environment of an animal
i.  largest North American frog
j.  baby frog

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Appendices #2**

**Cycle**

This is a cycle organizer. You may use it as an example to make your own or print it out and use it just as it is.



**Appendices #3**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Beginning** **1** | **Developing** **3** | **Mastered** **5** | **Score/ Comment** |
| Vocabulary Puzzle  | My puzzle has some of the vocabulary words.  I did not share my puzzle with a classmate and complete a classmate's puzzle. | My puzzle has all of the vocabulary words but my definitions could be better.  I shared my puzzle but I did not complete a classmate's puzzle. | My puzzle has all of the vocabulary words with complete definitions.  A classmate completed my puzzle, and I completed a classmate's puzzle. |   |
| Life Cycle Poster  | My poster is missing more than 2 stages of the frog's life cycle.  I did not use color on my poster and it is hard to read. | My poster shows most of the stages of the frog's life cycle.  More color and creativity could be added to my poster. | My poster shows all 4 stages of the frog's life cycle.  It is colorful, creative and easy to read. |   |
| Diorama  | My frog is not easily identified and does not have the correct habitat. | My frog can be identified if I give some clues.  The habitat is mostly correct.  I could have been more creative with my diorama. | My frog is easy to identify and shows the correct habitat.  A lot of thought and creativity went into building my diorama. |   |
| Feeding Sign  | My feeding sign does not correctly show what my frog eats.  Little creativity was used.  | My feeding sign shows what my frog eats, but it could be more creative and neater.  | My feeding sign correctly shows what my frog eats.  It is very interesting, creative and easy to read.  |   |

**Appendices #4**

Unable to copy and paste please click on the link below.

<http://www.eduplace.com/graphicorganizer/pdf/wheel_eng.pdf>

\*\*\*\****All Appendices for Lesson Five can be found through links on the Web Quest:***

Sutherland, M. (2003). Fantastic *Frogs.* Retrieved June 27, 2009, Web site: <http://nig.vsb.bc.ca/frog/>

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